

Amendments to the Specification:

Please replace the abstract with the following amended abstract:

— The present invention provides efficient Efficient methods for performing motion compensation are described. The methods are particularly useful during motion compensation based decoding and recoding. In one aspect, the look ahead motion compensation methods of the present invention obtain motion vector information for a macroblock being reconstructed in advance of motion compensation of the macroblock. The information is then converted into memory transfer instructions that can be used to perform transferring of reference image data in advance of the motion compensation operations. A reference sub-region needed for motion compensation, as identified by the motion vector, is then obtained in advance of motion compensation of the macroblock. —